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*Purchasers'  
Opinions of*

**FROZEN  
CRANBERRIES**

**in Minneapolis-St. Paul**

Marketing Research Report No. 183

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This study is one of a series concerning consumer preferences for farm products conducted by the Market Development Branch of the Marketing Research Division, Agricultural Marketing Service. It was conducted in cooperation with the Fruit and Vegetable Branch of the Marketing Division of Farmer Cooperative Service.

The Market Development Branch and the Fruit and Vegetable Branch jointly developed the plans for the study and the field operation. The Market Development Branch assumed major responsibility for collecting and processing the data.

The study was conducted under the general supervision of Trienah Meyers; Margaret Weidenhamer was the project director; and Wilbur F. Buck was responsible for arrangements with the individuals and organizations cooperating in the study.

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June 1957



# PURCHASERS' OPINIONS OF FROZEN CRANBERRIES

## IN MINNEAPOLIS - ST. PAUL

by

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### INTRODUCTION

As a result of depressed prices to growers in recent years, cranberry marketing organizations have been searching for new or improved products that would increase total sales and bring about more satisfactory returns to growers. Production of frozen cranberries for sale when fresh berries are out of season has been considered as a means of extending the marketing period. The freezing process is relatively simple, and frozen berries experience little loss in weight and volume. Fresh cranberries, on the other hand, shrink as much as 33 percent when stored for extended periods of time and are subject to spoilage and loss of quality.

An important factor in deciding whether or not to market cranberries in frozen form is consumer reaction to the product. Since no information on this point was available, the Department of Agriculture undertook research intended to provide the industry with data on consumer acceptance of frozen cranberries. The purpose of this report is to describe the reactions to frozen berries of homemakers who participated in the study. It should be of interest to producers, processors, wholesalers, retailers, and others concerned with the marketing of cranberries.

### Procedure

This study was conducted in the Minneapolis-St. Paul area of Minnesota. This area was selected chiefly because adequate stocks of frozen cranberries were already available in local storage.

Arrangements for marketing the cranberries were made with the frozen food merchandiser of a supermarket chain. The frozen berries were offered for sale at 25 cents in 1-pound cardboard boxes under the brand name of the cooperative which supplied them. A picture of cranberries, simulating a window, appeared on the box, which was labeled "Frozen Fresh Cranberries." A single row of these packages was placed in frozen food cabinets with other frozen fruits and vegetables; in a few of the stores an additional row of berries was also on display near the frozen poultry counter. Signs calling attention to the berries were placed above these displays. Other promotion was limited to the insertion of a 3-column by 10-inch advertisement for cranberries in a large daily paper on Thursdays while the cranberries were on sale.

During the peak shopping hours for 3 successive weeks in April and May 1956, a representative of the Department of Agriculture was stationed near

the display in 10 of the supermarkets cooperating in the study. These representatives obtained the names and telephone numbers of a high proportion of the shoppers who bought frozen cranberries during this period. These purchasers were interviewed by telephone soon after they had used the berries.

Interviewing was conducted in May and early June 1956. Responses were obtained from 473 out of 529 cranberry buyers, whose names had been taken at the time of the purchase.

### Scope of the Study

This study was designed to obtain the following kinds of information from those who had bought and used the berries: <sup>1/</sup>

1. General feelings of satisfaction or dissatisfaction with frozen cranberries.
2. The characteristics of frozen berries which were liked and any critical comments about the product.
3. Comparison of frozen cranberries with fresh and canned berries.
4. Willingness to buy frozen cranberries again in spring and summer.
5. Attitudes toward the recipes printed on the package.
6. General satisfaction with the package and particularly their feeling about its size.
7. The relation between satisfaction and ways of storing and defrosting the berries.
8. Uses of cranberries and foods served with them.

### Limitations of the Study

In interpreting the results of this study, it must be borne in mind that the respondents did not constitute a representative sample of homemakers in the Minneapolis-St. Paul area. Consequently, no conclusions can be drawn about the reactions of homemakers in general. It should also be noted that the participating chain had a rather large frozen food department which may have attracted shoppers with unusually favorable attitudes toward frozen foods. Furthermore, it is possible that the respondents may have been favorably biased by such factors as the novelty of having cranberries off-season and the awareness that the Department of Agriculture was interested in their opinions.

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<sup>1/</sup> Questionnaire is shown in appendix.



## RESULTS OF THE STUDY

Favorable reactions toward frozen cranberries were reported by nearly all the homemakers who participated in this study. Respondents were classified in terms of the degree of satisfaction expressed in their replies to the question, "What did you think of these frozen cranberries?" This classification showed that

88 percent of the respondents expressed  
complete satisfaction 2/  
11 percent expressed satisfaction but also  
offered some criticisms, and only  
1 percent expressed dissatisfaction

In this report comparisons of the opinions of the first two groups will be made wherever similarities or differences are of interest. The third group is too small to permit an analysis of their opinions except when it is appropriate to include them in the second group.

Homemakers' satisfaction with frozen cranberries was not related to age or to family income level; that is, younger and older women, and women from upper and lower income groups were all equally well satisfied (table 1).

### Favorable Attitudes Toward Frozen Cranberries

Further classification of replies to the question quoted above revealed the source of the homemakers' satisfaction with frozen cranberries and the reasons for their criticisms. In discussing what they liked about the frozen product, over 6 respondents in 10 mentioned flavor. They described it as "a real fruit flavor" or said that it was "tasty," "wonderful," or "delicious." Nearly 3 in 10 said the flavor was as good as or better than the flavor of fresh cranberries.

A second characteristic of frozen cranberries that appealed to the respondents was appearance. About 3 in 10 mentioned the color or the large, uniform size of the berries. A similar proportion was impressed by the high quality of the berries selected for freezing. Other less frequently mentioned reasons for liking frozen cranberries included the convenience of preparing clean, ready-to-use berries and their good cooking properties (table 2).

The general tone of the replies just discussed can be made clearer by a few direct quotations. The following are typical:

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2/ By way of comparison, in a study of consumer acceptance of frozen grapefruit sections similar proportions of respondents expressed satisfaction with that product. (Frozen Grapefruit Sections. Evaluating a New Product by Retail Sales Audit and Household Survey, Marketing Research Report No. 110, U. S. Dept. Agr., 1955.)

The flavor was real good...  
The sauce tasted like it was made from fresh berries....  
They had a bright red color that was appealing to me....  
They were handy and quick to fix....

Some differences of emphasis appeared when comparisons were made between the reasons for liking frozen cranberries given by completely satisfied respondents and those who were satisfied but expressed some criticism. The completely satisfied were about four times as likely as the critical to mention the high quality of frozen berries; the former group was also about twice as likely as the latter to speak of the convenience of preparing clean, ready-to-use berries.

### Unfavorable Attitudes Toward Frozen Cranberries

Although only 1 respondent in 10 gave any reasons for dissatisfaction with frozen cranberries, some of their criticisms are of particular interest, since they suggest precautions that might be taken to minimize consumer dissatisfaction.

Analysis of the reasons for dissatisfaction given by critical respondents showed that the most frequently mentioned complaint referred to the poor quality of the berries. Nearly one-half of those who offered criticisms made comments such as the following:

Most of them were shriveled up when I took them out of the box....They didn't look very appetizing.

I wondered about them freezing bad ones. We found a few and I expect frozen food to be perfect. They could be more careful in packing.

Since, as noted previously, superior quality was a source of satisfaction to so many respondents, complaints about poor quality are evidently unrelated to the freezing process. Although criticism of quality was made by a relatively small proportion of purchasers, it would seem desirable to use quality control procedures that would insure the standard consumers may have come to expect in frozen foods.

A second type of complaint referred to poor cooking qualities. About <sup>4</sup> in 10 of the respondents who expressed some dissatisfaction with frozen cranberries said that sauce made from the frozen berries did not jell, was slow to jell, or that it needed more sugar than they had used. Since fresh cranberries sometimes lose as much as 33 percent of their moisture content between harvest and marketing, it is possible that better results would be obtained if frozen cranberries were cooked in less water than is ordinarily used for cooking fresh cranberries.

Other less frequently mentioned criticisms referred to flavor, to some difficulty in preparation, or to cost (table 3).

Comparison of Frozen Cranberries With Fresh  
and Canned Cranberries

Frozen cranberries seem to have appealed more to shoppers who had used fresh cranberries than to those who had used canned berries or sauce. In the year preceding this survey,

93 percent of the respondents had used fresh cranberries, and  
50 percent had used canned cranberries.

From the point of view of users of fresh cranberries, freezing has no undesirable effect on the characteristic qualities of the berries. In comparing frozen with fresh cranberries,

46 percent said they like both equally well,  
43 percent said they liked frozen cranberries better  
than fresh, and  
10 percent said they liked fresh cranberries better  
than frozen.

Respondents who said they liked frozen cranberries better than fresh ones were asked their reasons for this preference. Nearly 6 in 10 mentioned the convenience of preparing clean, ready-to-use berries, and the ease of storing them. Other favorable comments referred to the fine flavor of the berries, their appetizing appearance, the economy of using them, and the high quality of the berries selected for freezing (table 4).

The preference for frozen cranberries is directly related to the degree of satisfaction. About half of the completely satisfied respondents said they liked frozen cranberries better than fresh ones, while only 1 in 10 of the critical respondents preferred frozen berries. Nearly half of this latter group said they liked fresh cranberries better, whereas fewer than 1 in 10 of the completely satisfied preferred fresh cranberries (table 5).

In a similar comparison of frozen with canned cranberries,

87 percent said they liked frozen cranberries better  
than canned,  
9 percent said they liked both equally well, and only  
1 percent said they liked canned better than frozen.

About 6 in 10 of the respondents who said they liked frozen cranberries better than canned berries gave "flavor" as the reason for their preference; smaller proportions--about 2 in 10--spoke favorably of the cooking properties or the appearance of frozen berries (table 6).

The preferences of more frequent and less frequent users of cranberries in fresh and canned forms were compared to see if the respondent's

degree of familiarity with cranberries in each form was related to her preference. Although slightly smaller proportions of the more frequent users of both fresh and canned cranberries expressed a preference for frozen berries, this relationship does not seem to be important (tables 7 and 8).

### Interest in Repeat Purchases

While respondents' statements of their willingness to make repeat purchases of a product are not equivalent to data on the number of times consumers actually purchase it, such an intention can be regarded as one index of consumer acceptance of the product. Respondents in this study were, therefore, asked, "Would you like to be able to buy frozen cranberries like these again in spring or summer?"

Ninety-six percent of the respondents said they would like to be able to buy frozen cranberries again during these seasons. It is especially interesting to note that replies to this question were not related to degree of satisfaction. Practically the same proportions of completely satisfied and critical respondents expressed the desire to buy frozen cranberries again in spring or summer (table 9).

### Experience With Suggested Recipes

Several recipes were printed on the box in which the frozen cranberries were sold. About one-half of the respondents reported that they had followed one of the recipes when they cooked the cranberries. For the most part, reactions were favorable; nearly 8 out of 10 of the respondents who followed one of the recipes said they liked it. They reported that they found the recipes simple to follow and that they liked the results.

On the other hand, nearly 2 respondents in 10 who had used a recipe on the box were critical of it. The chief complaint of those who were not satisfied with the recipes was poor consistency. They considered the sauce "too thin" or "too runny" (tables 10 and 11). For example, one woman said,

They were too watery, but that was because the recipe called for 2 cups of water. They didn't need that much.

Of the respondents who did not follow one of the recipes, most did not do so because they preferred a recipe of their own or because they made something for which no recipe was given. But about one-fourth of the reasons given for not following a suggested recipe referred to a preference for a sauce that was thicker than seemed likely to result from use of the printed recipe. These respondents said they used less water or cooked the sauce longer than the recipe suggested (table 12).

Although no individual recipe is likely to seem entirely satisfactory to all consumers, these findings again suggest the need to determine the amount of water needed for best results in cooking frozen cranberries.

### Satisfaction With Size of Box

The box in which the frozen cranberries were sold held 1 quart, and its dimensions were  $7 \frac{3}{4} \times 3 \frac{3}{4} \times 2 \frac{1}{3}$  inches, the same size and shape as the box in which fresh cranberries frequently are sold. It seemed possible that a box with these dimensions might be too bulky to be stored in the freezing compartment of some refrigerators or that the box would hold more cranberries than a small household could use at one time. Respondents were, therefore, asked, "Is this box the right size for you, or would you rather have a larger or a smaller box?"

Most respondents expressed approval of the box size.

- 88 percent said the size was about right for them
- 10 percent said they would prefer a smaller box
- 2 percent said they would prefer a larger box.

Regardless of the size of the household, 9 out of 10 respondents prepared the whole box at one time. There was, however, a slight relationship between size of household and an expressed preference for a smaller box (tables 13 and 14). The proportions of respondents in small, medium, and large households who would prefer a smaller box were:

- 13 percent in households with 1 or 2 members
- 10 percent in households with 3 or 4 members
- 6 percent in households with 5 or more members.

These results do not indicate that the box size was an important consideration to these purchasers of frozen cranberries. However, it should be borne in mind that some shoppers may not have bought the cranberries either because the box was too bulky for convenient storage or because they would have preferred to buy a smaller amount.

### Storing and Defrosting Frozen Cranberries

Instructions on many frozen food packages indicate that the contents should not be defrosted before cooking. Instructions on the box in which the frozen cranberries were sold simply stated that defrosting was not necessary. To determine whether or not allowing the berries to defrost affected consumer reactions, the interviewing form included questions on this point.

Three out of 4 respondents stored their cranberries in the freezing compartment of their refrigerators; slightly over 1 in 10 kept them in their refrigerators outside the freezing compartment; and a few left the berries outside the refrigerator. There is no evidence that these different ways of keeping the berries affected consumer satisfaction; roughly the same proportion of completely satisfied and critical respondents stored the berries in the same way (table 15).

About 1 respondent in 5 allowed the berries to defrost for varying periods of time, usually less than 1 day. Although a slightly larger proportion of the critical than of the completely satisfied respondents allowed their cranberries to defrost before use, survey results do not indicate a close relationship between defrosting and dissatisfaction. Further research would be required to determine whether defrosting before cooking has an adverse effect on the quality of frozen cranberries (table 16).

### Uses of Cranberries

It is reasonable to suppose that frequency of use of a food item is related to homemakers' opinions of its versatility, that is, the number of different ways it can be served and the number of other food items with which it can be served. While the respondents in this study cannot be considered typical cranberry users, questions were included in the interviewing schedule which were designed to obtain their opinions of the versatility of cranberries. They were asked how they served the frozen cranberries and with what other foods, and, more generally, in what other ways they sometimes served cranberries and with what foods.

Replies to these questions indicate that cranberries are potentially, at least, quite versatile. Although 8 out of 10 respondents said they made sauce with the frozen cranberries, small proportions said they had used the cranberries for such items as relish, salad, jam, jelly, and bread. They also said that at other times they used cranberries for such things as pies, muffins, puddings, sherbet, gelatin, and as a beverage (table 17). There was no relationship between degree of satisfaction and the way the cranberries were used. Frozen cranberries thus appear to be equally satisfactory for any of the items the homemakers used them for (table 18).

As far as foods served with frozen cranberries are concerned, nearly half of the respondents had used them with chicken, but other food items with which they were served included beef, pork, turkey, and ham. A third of the respondents said they also liked to serve cranberries with all meats, and one-fourth said they liked cranberries with any other food (table 19).

### CONCLUSION

Results of this study cannot be used to predict the potential off-season sales volume of frozen cranberries, or the effect of off-season sales on the total sales volume per year. However, the results do indicate that most of the respondents in the study were satisfied with frozen cranberries. Complaints about the berries were not serious nor were they made by a large proportion of the respondents.



APPENDIX

Tables

Table 1.--Relation between respondents' satisfaction with frozen cranberries and background characteristics

Characteristics of respondents	Respondents whose comments about frozen cranberries indicate —				
	Complete satis- faction	Qualified satis- faction	Dissatis- faction	Total	Respond- ents <u>1/</u>
	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Number</u>
All respondents -----	88	11	1	100	473
Age:					
Under 45 -----	89	11	--	100	202
45 and over -----	83	11	1	100	268
Income:					
\$4,000 and under ----	92	7	1	100	124
Over \$4,000 -----	87	12	1	100	309

1/ The number of cases shown adds to less than the total number of respondents because age and income were not ascertained for some respondents.

Table 2.--Reasons respondents gave for liking frozen cranberries

Reasons	All respondents		Respondents whose comments about frozen cranberries indicate --			
			Complete satisfaction		Qualified satisfaction	
	Percent 1/		Percent 1/		Percent 1/	
Flavor -----		65		65		66
Real fruit flavor -----	28		28		32	
As good as fresh -----	20		20		22	
Good, tasty -----	18		18		16	
Wonderful, delicious -----	13		14		6	
Better than fresh -----	8		8		4	
Tangy, tart, not flat -----	6		6		6	
Sweet -----	3		3		6	
Mild, not tart -----	3		3		2	
Just like taste -----	1		1		2	
Miscellaneous -----	3		3		2	
Appearance -----		32		32		32
Good color, looked pretty ----	25		25		22	
Large, uniform size -----	8		8		8	
Beautiful -----	2		2		6	
Quality -----		29		31		8
Perfect, superior quality ----	25		27		8	
Fresh -----	4		4		4	
Full, not shriveled -----	1		1		--	
Ripe -----	1		1		--	
Convenience of preparation -----		26		28		16
Clean, ready to use -----	18		18		12	
Easy to prepare -----	6		6		4	
Easy to store -----	5		6		4	
Quick to prepare -----	3		3		2	
Miscellaneous -----	1		1		--	
Cooking properties -----		19		19		18
Cook up well -----	10		9		14	
Firm, retain shape -----	5		6		--	
Thick, not runny -----	2		3		--	
Cricy -----	2		2		4	
Miscellaneous -----	1		1		--	
Economy -----		13		13		10
No waste -----	10		10		6	
Economical -----	3		3		4	
Available out of season -----		8		8		4
Nonspecific favorable com- parison with fresh -----		35		36		30
Nonspecific favorable com- parison with canned -----		2		2		2
"Just like" -----		3		3		4
Miscellaneous -----		2		2		1
Number of respondents -----	473		419		50	

1/ Percentages add to more than their subtotals and these add to more than 100 because some respondents gave more than 1 reason.

Table 3.--Reasons respondents gave for not liking frozen cranberries

Reasons	Homemakers who were not completely satisfied with frozen cranberries	
	<u>Percent</u>	<u>1/</u>
Quality -----		45
Soft, mushy -----	17	
Too many spoiled ones -----	11	
Tough skin -----	9	
Shriveled, wilted -----	6	
Too dark -----	6	
Unripe berries -----	2	
Cooking properties -----		42
Would not jell, slow to jell -----	30	
Requires more sugar -----	4	
Miscellaneous -----	8	
Flavor -----		13
Not as good as fresh -----	6	
Not tart -----	6	
Miscellaneous -----	4	
Preparation -----		13
Not easy to prepare -----	6	
Not easy to clean -----	5	
Must be kept frozen -----	5	
Cost -----		2
Miscellaneous -----		2
Number of respondents -----	54	

1/ Percentages add to more than their subtotals and these add to more than 100 because some respondents gave more than 1 reason.

Table 4.--Reasons respondents gave for liking frozen cranberries better than fresh cranberries

Reasons	Respondents who preferred frozen cranberries to fresh	
	<u>Percent</u>	<u>1/</u>
Convenience -----		58
Clean, ready to use -----	41	
Easy to store -----	17	
Easy to prepare -----	9	
Quick to prepare -----	6	
Miscellaneous -----	4	
Flavor -----		40
Good, tasty -----	19	
Real fruit flavor -----	16	
Sweet -----	6	
Miscellaneous -----	4	
Appearance -----		28
Good color, looked pretty -----	20	
Large, uniform size -----	9	
Economy -----		21
No waste -----	19	
Economical -----	2	
Good quality -----		18
Cooking qualities -----		12
Cook up well -----	7	
Firm, retain shape -----	5	
Miscellaneous -----	2	
Available out of season -----		6
Miscellaneous -----		1
Not ascertained -----		1
Number of respondents -----	191	

1/ Percentages add to more than their subtotals and these add to more than 100 because some homemakers gave more than 1 reason.

Table 5.--Relation between satisfaction with frozen cranberries and replies to the question: "Which do you like better--fresh cranberries or frozen cranberries?" (Asked only of those who had used fresh cranberries in the preceding year)

Replies	All users of fresh cranberries	Users of fresh cranberries whose comments about frozen cranberries indicate --	
		Complete satisfaction	Qualified satisfaction
	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
Like frozen better -----	43	48	12
Like fresh better -----	10	5	44
Like both about the same -----	46	46	44
Not ascertained -----	1	1	--
Total -----	100	100	100
Number of respondents <u>1/</u> --	440	389	48

1/ The number of cases adds to less than the total because the number of dissatisfied respondents was too small to permit detailed tabulation.

Table 6.--Reasons respondents gave for liking frozen cranberries better than canned cranberries

Reasons	Respondents who preferred frozen cranberries to canned	
	<u>Percent</u>	
Flavor -----		65
Good, tasty -----	25	
Real fruit flavor -----	19	
Tangy, not flat -----	11	
Just like taste -----	11	
Miscellaneous -----	2	
Cooking properties -----		26
Prefer to cook own -----	6	
Not runny -----	5	
Prefer whole berries in sauce -----	3	
Firm, retain shape -----	3	
Can use many ways -----	3	
Tender, juicy -----	2	
Cook up well -----	1	
Miscellaneous -----	3	
Appearance -----		17
Good color -----	15	
Excellent appearance -----	2	
"Just like" -----		9
Price and economy -----		5
Convenience -----		3
Miscellaneous -----		6
Not ascertained -----		5
Number of respondents -----	206	



Table 7.--Relation between frequency of use of fresh cranberries and replies to the question: "Which do you like better--fresh cranberries or frozen cranberries?"

Replies	Respondents who had used fresh cranberries the preceding year —	
	10 or more times	9 times or less
	<u>Percent</u>	<u>Percent</u>
Like frozen better -----	40	47
Like fresh better -----	13	7
Like both about the same -----	47	45
Not ascertained -----	--	1
Total -----	100	100
Number of respondents <u>1/</u> -----	193	231

1/ Frequency of use of fresh cranberries was not ascertained for 16 respondents.

Table 8.--Relation between frequency of use of canned cranberries and replies to the question: "Which do you like better--canned cranberries or frozen cranberries?"

Replies	Respondents who had used canned cranberries in the preceding year —	
	4 or more times	Less than 4 times
	<u>Percent</u>	<u>Percent</u>
Like frozen better -----	82	91
Liked canned better -----	2	2
Like both about the same -----	15	5
Not ascertained -----	1	2
Total -----	100	100
Number of respondents <u>1/</u> -----	102	125

1/ Frequency of use of canned cranberries was not ascertained for 11 respondents.

Table 9.--Relation between satisfaction with frozen cranberries and replies to the question: "Would you like to be able to buy frozen cranberries like these again in the spring or summer?"

Replies	All respondents	Respondents whose comments about frozen cranberries indicate —	
		Complete satisfaction	Qualified satisfaction
	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
Yes, would like to buy again ----	96	98	94
No, would not like to buy again -	2	1	2
Not ascertained -----	2	1	4
Total -----	100	100	100
Number of respondents <u>1</u> /-----	473	419	50

1/ The number of cases adds to less than the total because the number of dissatisfied respondents was too small to permit detailed tabulation.

Table 10.--Relation between satisfaction with frozen cranberries and replies to the question: "When you used these cranberries, did you follow one of the recipes on the box?"

Replies	All respondents	Respondents whose comments about frozen cranberries indicate —	
		Complete satisfaction	Qualified satisfaction
	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
Yes, followed recipe on box -----	48	47	62
No, did not follow recipe on box	52	53	38
Not ascertained -----	<u>1</u> /	<u>1</u> /	--
Total -----	100	100	100
Number of respondents <u>2</u> / ----	473	419	50

1/ Less than 1 percent.

2/ The number of cases adds to less than the total because the number of dissatisfied respondents was too small to permit detailed tabulation.

Table 11.--Relation between satisfaction with frozen cranberries and reaction to recipes suggested on the box (Asked only of those who used a suggested recipe)

Reaction	All respondents who used a suggested recipe	
	<u>Percent</u>	<u>1/</u>
Liked the recipe -----		76
Liked (general) -----	48	
Simplicity -----	11	
Taste of result -----	9	
Consistency of result -----	7	
Miscellaneous favorable comments -----	3	
Disliked the recipe -----		16
Consistency of result -----	15	
Taste of result -----	7	
Miscellaneous unfavorable comments -----	1	
Not different from other recipes -----		7
Not ascertained -----		1
Number of respondents <u>2/</u> -----	229	

1/ Percentages add to more than their subtotals because some respondents gave more than 1 reaction.

2/ The number of cases adds to less than the total because the number of dissatisfied respondents was too small to permit detailed tabulation.

Table 12.--Relation between satisfaction with frozen cranberries and replies to the question: "Would you tell me why you didn't use one of these recipes?" (Asked only of those who did not use a suggested recipe)

Replies	All respondents who did not use a suggested recipe
	<u>Percent 1/</u>
Prefer own recipe -----	53
Prefer less water -----	20
Prefer less sugar -----	7
Prefer strained sauce -----	7
Recipe not given for particular dish --	6
Prefer to cook longer -----	6
Prefer sugar substitute -----	4
Prefer more sugar -----	3
Prefer more water -----	2
Used apples -----	2
Can't read fine print -----	2
Miscellaneous -----	4
Not ascertained -----	<u>2/</u>
Number of respondents -----	244

1/ Percentages add to more than 100 because some respondents gave more than 1 reason.

2/ Less than 1 percent.

Table 13.--Relation between size of household and replies to the question: "Is this box about the right size for you, or would you rather have a larger or smaller box?"

Replies	All respondents	Size of household		
		1 or 2 persons	3 or 4 persons	5 or more persons
	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
About the right size	88	85	89	93
Would prefer smaller	10	13	10	6
Would prefer larger	2	2	1	1
Not ascertained ----	<u>1/</u>	--	<u>1/</u>	--
Total -----	100	100	100	100
Number of respondents 2/ --	473	166	210	94

1/ Less than 1 percent.

2/ Information on size of household was not ascertained for 3 respondents.

Table 14.--Relation between size of household and replies to the question:  
"Did you use the whole box at once, or just part of it?"

Replies	All respond- ents	Size of household		
		1 or 2 persons	3 or 4 persons	5 or more persons
	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
Whole box -----	89	90	89	88
Just part of it -----	10	9	10	9
Not ascertained -----	1	1	1	3
Total -----	100	100	100	100
Number of respondents 1/ ---	473	166	210	94

1/ Information on size of household was not ascertained for 3 respondents.

Table 15.--Relation between satisfaction with frozen cranberries and replies  
to the question: "How did you store these cranberries before you used them?"

Replies	All respondents	Respondents whose comments about frozen cranberries indicate --	
		Complete satisfaction	Qualified satisfaction
	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
In freezing compartment ---	75	75	76
In refrigerator -----	15	16	12
Outside refrigerator -----	3	2	6
Used right away -----	7	7	6
Total -----	100	100	100
Number of respondents 1/ -----	473	419	50

1/ The number of cases adds to less than the total because the number of dissatisfied respondents was too small to permit detailed tabulation.

Table 16.--Relation between satisfaction with frozen cranberries and replies to the question: "How soon did you cook them after they defrosted?"

Replies	All respondents		Respondents whose comments about frozen cranberries indicate --			
			Complete satisfaction		Qualified satisfaction	
	<u>Percent</u>		<u>Percent</u>		<u>Percent</u>	
Did not defrost -----		75	----	77	----	68
Did defrost -----		18	----	15	----	26
Less than 1 hour ----	4		3		6	
1 to 3 hours -----	5		4		12	
3 hours to a day ----	6		6		4	
1 to 3 days -----	3		2		4	
More than 3 days ----	<u>1</u> /		<u>1</u> /		--	
Did not cook -----		2	----	3	----	--
Not ascertained -----		5	----	5	----	6
Total -----	100		100		100	
Number of respondents <u>2</u> / ----	473		419		50	

1/ Less than 1 percent.

2/ The number of cases add to less than the total since the number of dissatisfied respondents was too small to permit detailed tabulation.



Table 17.--Replies to the questions: "How did you use these cranberries?" and "What other things have you made with cranberries?"

Replies	Respondents who —	
	Used frozen cranberries for each item	Had used fresh or canned cranberries for each item
	Percent <sup>1/</sup>	Percent <sup>1/</sup>
Sauce -----	84	15
Relish -----	8	39
Salad -----	5	27
Jam, jelly -----	3	--
Bread, muffins -----	1	11
Pie -----	--	19
Pudding -----	--	5
Sherbet -----	--	3
Gelatin -----	--	2
Beverage -----	--	2
Other -----	5	2
Not ascertained -----	<sup>2/</sup>	--
Number of respondents -----	473	473

<sup>1/</sup> Percentages add to more than 100 because some respondents named more than 1 item.

<sup>2/</sup> Less than 1 percent.

Table 18.--Relation between satisfaction with frozen cranberries and replies to the question: "How did you use these cranberries?"

Replies	Respondents whose comments about frozen cranberries indicate —	
	Complete satisfaction	Qualified satisfaction
	<u>Percent</u> <sup>1/</sup>	<u>Percent</u> <sup>1/</sup>
Sauce -----	84	86
Relish -----	8	6
Salad -----	5	4
Jam, jelly -----	3	4
Bread -----	1	2
Other -----	5	--
Not ascertained -----	<u>2/</u>	--
Number of respondents -	419	50

<sup>1/</sup> Percentages add to more than 100 because some respondents used the cranberries in more than 1 way.

<sup>2/</sup> Less than 1 percent.

Table 19.--Replies to the questions: "What food did you serve them with?" and "What other foods do you like to serve with cranberries?"

Replies	Respondents who --	
	Served each item with frozen cranberries	Other items liked to serve with cranberries
	Percent <sup>1/</sup>	Percent <sup>1/</sup>
Chicken -----	47	27
Beef -----	16	14
Pork -----	10	23
Turkey -----	9	32
Ham -----	7	10
All meats -----	--	34
All fowl -----	--	29
Anything -----	--	28
Other meats -----	--	6
Other fowl -----	--	6
Miscellaneous -----	12	26
Number of respondents ----	473	473

<sup>1/</sup> Percentages add to more than 100 because some respondents mentioned more than 1 item.

The questionnaire is reproduced below  
with the exception of free-answer space.

U. S. Department of Agriculture  
Agricultural Marketing Service  
Market Development Branch  
Market Surveys Section

Budget Bureau No. 40-5642  
Expiration Date 6/30/56  
April 9, 1956

QUESTIONNAIRE

MD 1-20 PURCHASERS' OPINIONS OF AND ATTITUDES TOWARD FROZEN CRANBERRIES

Telephone Number \_\_\_\_\_ Interviewer \_\_\_\_\_

Planned Purchase ☐ Impulse ☐  
Quantity bought \_\_\_\_\_ boxes  
Estimated age \_\_\_\_\_ years  
Sheet Number \_\_\_\_\_

Good morning (afternoon). May I speak to \_\_\_\_\_? I am calling for the Department  
(respondent's name)  
of Agriculture. The other day when you bought some frozen cranberries, you said we might telephone  
you to find out what you and your family thought about them.

1. Have you had a chance to try them yet?

Yes ☐ --GO TO Q. 4 No ☐

IF NO

2. When do you expect to use them?

3. When would be a good time to call you again?

If YES TO Q. 1

4. How did you use these cranberries?

Cranberry sauce ☐ Other \_\_\_\_\_  
(specify)

5. What did you think of these frozen cranberries?

5a. Was there anything you liked (didn't like) about them?

6. What food did you serve them with?

Chicken ☐ Turkey ☐ Other \_\_\_\_\_  
(specify)

6a. What other foods do you like to serve cranberries with?

7. Have you ever used cranberries to make anything other than \_\_\_\_\_? (Use mentioned in Q. 4)

Yes ☐ No ☐ --GO TO Q. 8

If YES

7a. What other things have you made with cranberries?

8. When you used these cranberries, did you follow one of the recipes on the box?

Yes ☐ --ASK Q. 8a No ☐ --ASK Q. 8b

If YES

8a. What did you think of it?

If NO

8b. Would you tell me why you didn't use one of these recipes?

9. How did you store these cranberries before you used them? (Did you put them in a freezing compartment or just in the refrigerator, or did you leave them outside the refrigerator?)

Freezing compartment ☐ Refrigerator ☐ Outside the refrigerator ☐

If Cooked

10. Did you let the cranberries defrost before you cooked them?

Yes ☐ No ☐ --GO TO Q. 11

If YES

- 10a. How soon did you cook them after they defrosted?

11. Did you use the whole box at once, or just part of it?

All at once ☐ Just part of it ☐

12. How about the box itself? Was there anything you didn't like about it?

IF SIZE PREFERENCE WAS NOT DISCUSSED, ASK:

- 12a. Is this box about the right size for you or would you rather have a larger or smaller box?

Larger ☐ Smaller ☐ About right ☐

13. Have you bought any fresh cranberries in the past twelve months?

Yes ☐ No ☐ --GO TO Q. 14

If YES

- 13a. About how many times did you buy them?

- 13b. Which do you like better -- fresh cranberries or frozen cranberries?

Fresh ☐ Frozen ☐ About the same ☐

- 13c. Why is that?

14. Have you bought any canned cranberries in the past twelve months?

Yes ☐ No ☐ --GO TO Q. 15

If YES

- 14a. About how many times did you buy them?

- 14b. And which do you like better -- canned cranberries or frozen cranberries?

Canned ☐ Frozen ☐ About the same ☐

- 14c. Why is that?

15. Would you like to be able to buy frozen cranberries like these again in the spring or summer?

Yes ☐ No ☐

16. Is there anything else you would like to tell us about these cranberries?

Now we need to know just a little more about the families who have used this product.

17. First of all, how many members of your family are living at home now?

(Circle one) 1 2 3 4 5 6 7 8 9

18. And here's the last question. Please tell me if your total family income last year was more than \$4,000 or less than \$4,000.

Less than \$4,000 ☐ More than \$4,000 ☐

